

yellow or yellowish. Antennal joint 3 light yellow, 4 and succeeding joints yellow lightly tinged with brown excepting apices of 4 and 5, 6 to 8 being practically yellowish-brown. Wings much as in *Eidothrips alluandi*, with the median veins narrowly yellowish-brown; cheeks with a few pairs of minute spiniferous tubercles; outer margins of femora with some longish blunt or knobbed colourless setæ. Tube sparingly but regularly setose in both sexes, less than 1.4 times as long as the head. Pronotum about 0.45 the length of the head. Relative lengths of antennal joints 3 to 8 as follows:—55 : 36 : 30 : 24 : 12 : 11 (or 10.5). Fore-femora and tibiæ in the ♂ more strongly and noticeably pilose than in the ♀.

Type. British Museum of Natural History (Imperial Bureau of Entomology).

Hab. GOLD COAST, Aburi (not on leaves of *Cacao*), Adawsi Rd., 27. 1. 14 (*W. H. Patterson*), Reg. 282; I.B.E. no. 116.

XXIII.—*Notes on the Braconidæ in the British Museum.*—
 III. *On new Australian Agathinæ.* By ROWLAND E. TURNER, F.Z.S., F.E.S.

Key to the Australian Species of Cremnops.

1. Hind femora blackish; wings of the female yellow at the base and with a broad yellow band below the stigma, of the male fuscous with a narrow diaphanous band below the stigma. *C. dissimilis*, Turn.
- Hind femora testaceous red; wings not differing in colour sexually. 2.
2. Wings yellow basally from the nervulus and in the region of the stigma 3.
- Wings fuscous, only marked with yellow in the region of the stigma *C. xanthostigma*, Szépl.
3. The yellow colour of the wings extending unbroken from the base as far as the apex of the second cubital cell *C. marginipennis*, Turn.
- The yellow area interrupted by a broad fuscous band from the base of the stigma. *C. commutator*, Turn.

Cremnops xanthostigma, Szép.

Cremnops xanthostigma, Szép. Termes. Fuzetek. xxiii. p. 61 (1900). ♀.

A specimen from Kuranda, N. Queensland, agrees fairly well with the description, but has only a small yellow spot at the base of the stigma. A series of males from Mackay show variations in this mark, which is usually fairly large and triangular as in Szépligeti's description.

Hab. New Guinea (*Biró*); Kuranda (*Turner*), May 1913; Mackay (*Turner*), January 1898.

C. fulgidipennis, Cam. (1911), from the Solomon Islands, is extremely close to this, but has the terebra rather longer and the yellow spot at the base of the stigma almost obsolete. Cameron placed the species in *Agathis*; but it is a *Cremnops*.

Cremnops dissimilis, sp. n.

♀. Rufo-ferruginea; capite, segmento mediano, femoribus posticis, tibiis posticis apice, tarsisque posticis, abdomine segmento quarto sequentibusque, valvulisque terebræ nigris; alis fuscis, anticis basi ad nervulum, fasciaque lata sub stigmate, posticis tertio basali fasciaque lata post medium flavis.

♂. Feminae similis; alis basi etiam fuscis, anticis fascia irregulari flavo-hyalina sub stigmate.

Long. 8 mm.; terebræ long. 4 mm.

♀. Face shining, finely punctured; marginal carinæ of the frontal depression extending to the posterior ocelli. Middle lobe of the mesonotum marked with two distinct and narrow longitudinal grooves separated from each other by a distinct carina. Median segment with coarse transverse striæ and the usual longitudinal carinæ, the two middle carinæ diverging slightly towards the apex, a small enclosed triangular area at the base of the posterior truncation. First tergite twice as long as its apical breadth in the female, considerably shorter in the male. Second cubital cell subquadrate. The stigma is almost entirely yellow in the female, but fuscous on the apical half in the male.

Hab. Mackay, Queensland (*Turner*), March to May, 1900.

Cremnops marginipennis, sp. n.

♀. Rufo-testacea; capite, valvulis terebræ, tibiis posticis apice tarsisque posticis nigris; clypeo, mandibulis palpisque testaceis; alis pallide flavis, post cellulam cubitalem secundam latissime fusco-marginatis.

♂. *Feminae simillimus*, segmentis abdominalibus quarto sequentibusque nigris.

Long. 7-8 mm.; terebræ long. 3 mm.

♀. Face shining, almost smooth; marginal carinæ of the frontal depression extending to the posterior ocelli. Anterior portion of the mesonotum with two very shallow longitudinal grooves, separated by a low and indistinct carina. Median segment coarsely reticulate; the two median carinæ of the dorsal surface diverging slightly towards the apex; a small enclosed triangular area at the base of the posterior truncation. Abdomen smooth and shining; first tergite twice as long as its apical breadth in the female, shorter in the male. Legs, valvulæ, and costa of both pairs of wings clothed with very short hairs. Second cubital cell subquadrate; the vein dividing the first cubital and first discoidal cells obsolete in the middle.

Hab. Kuranda, N. Queensland (*Turner*), May 1913, 1 ♀ (type), 1 ♂ (cotype); January 1902, 1 ♀.

Cremnops commutator, sp. n.

♀. Rufo-testacea; capite, abdomino segmentis quarto sequentibusque, valvulis terebræ, tibiis posticis apice, tarsis posticis basi lato testaceo annulatis, unguiculisque nigris; alis fuscis; anticis basi usque ad nervulum, fasciaque lata sub stigmato; posticis tertio basali et fascia lata flavis.

Long. 9 mm.; terebræ long. 3 mm.

♀. Face shining and finely punctured; marginal carinæ of the frontal depression reaching the posterior ocelli; median lobe of the mesonotum with two well-marked longitudinal grooves. Median segment with the usual longitudinal carinæ, the spaces between the carinæ with a few coarse transverse striæ. Second cubital cell subquadrate.

Hab. Mackay, Queensland (*Turner*), October to May; Kuranda, N. Queensland (*Turner*), July 1913; Townsville, Queensland (*Dodd*); Port Darwin (*J. J. Walker*).

Closely allied to *Cremnops papuana*, Cam. (described as *Agathis p.*), but in that species the face is ferruginous. In the present form many specimens have the abdomen entirely rufo-testaceous, and the extent of the yellow band on the hind wing varies considerably, but I do not think that there are any differences of specific importance.

Braunsia wallacei, sp. n.

♀. Ferruginea; antennis, articulis duobus basalibus exceptis, segmentis dorsalibus tertio sequentibusque, valvulisque nigris; tarsis posticis infuscatis; alis fuscis, unicoloribus.
Long. 9 mm.; terebræ long. 6 mm.

♀. Antennæ rather slender; mesonotum in front without grooves. Median segment with one well-defined longitudinal carina from the base to the middle, continued less distinctly in a depression to the apex, the sides of the depression indistinctly margined. First tergite a little less than twice as long as its apical breadth, the apical half strongly longitudinally striated; second tergite and basal area of the third coarsely longitudinally striated, apical area of the third tergite entirely smooth; basal area of the second tergite equal to the apical area of the third and distinctly longer than either of the two intermediate areas. First cubital and first discoidal cells not divided; second cubital cell subtriangular, almost pointed on the radius, with a distinct stump of a nervure springing from the second transverse cubital nervure, the stump somewhat longer than that nervure. An oblique, irregular, hyaline streak runs outwards from the base of the stigma.

Hab. Dorei, New Guinea (*Wallace*).

Braunsia diversipennis, sp. n.

♂. Rufo-ferrugineus; capite nigro, mandibulis palpisque testaceis; tarsis posticis fuscis; alis dimidio basali flavis, dimidio apicali fuscis; stigmatate, maculaque magna sub stigmatate cellula cubitali secunda includente flavis.
Long. 11 mm.

♂. Eyes large and round; antennæ stout, the second joint very short and broad. Mesonotum in front without grooves, the parapsidal furrows strongly developed. Median segment with two median longitudinal carinæ, which converge towards the base and unite before the base. First tergite strongly longitudinally striated, the striæ not continued to the base, the basal half with strong lateral carinæ; the segment about twice as long as its apical breadth. Second tergite and basal area of the third tergite coarsely longitudinally striated, the two divisions of the second tergite equal in length, longer than the striated basal area of the third tergite, but distinctly shorter than the entirely smooth apical area of that segment.

The nervure separating the first cubital and first discoidal cells is distinct; second cubital cell pentagonal, with a distinct stump of a vein from the middle of the second transverse cubital nervure, the stump almost equal in length to the cubital margin of the cell. The yellow colour of the wings extends from the base to beyond the nervulus; the yellow spot below the stigma includes the apical half of the first and the whole of the second cubital cells and the base of the radial cell, and extends beyond the second transverse cubital nervure.

Hab. Mackay, Queensland (*Turner*).

Allied to *fasciata*, Enderl., but differs in the total absence of striæ on the apical division of the third tergite, in the red apical segments of the abdomen, the black head, and in details of colour and neuration of the wings.

Key to the Australian Species of Disophrys.

- | | |
|---|---------------------------------|
| 1. Mesonotum black | 2. |
| Mesonotum red | 3. |
| 2. Wings pale fusco-hyaline, slightly tinged with yellow | <i>D. nigropectus</i> , Turn. |
| Wing yellow to the apex of the stigma, crossed by a fuscous band from the base of the stigma, the apex broadly fuscous. | <i>D. similipicta</i> , Turn. |
| 3. Hind femora black, sometimes stained with red at the base | <i>D. diversipes</i> , Turn. |
| Hind femora red, rarely black at the extreme apex | 4. |
| 4. Wings fuscous, the stigma and a spot below it yellow | <i>D. signatipennis</i> , Turn. |
| Wings yellow or subhyaline on the basal third at least | 5. |
| 5. Head red | 6. |
| Head black, the face rarely red | 7. |
| 6. Wings subhyaline, crossed at the base of the stigma by a pale fuscous band | <i>D. diluta</i> , Turn. |
| Wings yellow on the basal third and crossed by a flavo-hyaline band from the base of the stigma | <i>D. exornata</i> , Turn. |
| 7. Face red | <i>D. rufifrons</i> , Turn. |
| Face black | <i>D. ruberrima</i> , Turn. |

Disophrys signatipennis, sp. n.

♂. Rufa; mandibulis palpisque rufo-testaceis; capite, segmentis abdominalibus tertio sequentibusque, femoribus posticis apice, tibiis posticis supra, tarsisque posticis nigris; alis nigris, stigmatum maculaque sub stigmatum flavis.

Long. 10 mm.

♂. Face closely and very distinctly punctured; the two interantennal ridges well developed; the marginal carinæ of the frontal depression well defined; vertex shining, sparsely punctured. Mesonotum sparsely and rather finely punctured; the depression at the base of the scutellum large and marked with three strong longitudinal carinæ; mesopleuræ almost smooth behind, punctured in front. Median segment transversely striated in the spaces between the usual longitudinal carinæ, the sides of the segment finely punctured-rugulose. Hind coxæ sparsely and finely punctured. Abdomen smooth and shining; an indistinct, transverse, impressed line near the middle of the second tergite. Second cubital cell subquadrate. The flavo-hyaline mark below the stigma extends into the second cubital cell, and below the cubitus along the recurrent nervure.

Hab. Kuranda, N. Queensland (*Turner*), July 1913.

Disophrys ruberrima, sp. n.

♀. Rufa; mandibulis basi palpisque testaceis; capite, tibiis posticis apice tarsisque posticis nigris; alis anticis fuscis, basi ad nervulum, stigmatem, maculaque magna sub stigmatem cellulam cubitalem secundam includente flavis; posticis dimidio basali flavo, dimidio apicali fusco.

Long. 13 mm.

♀. Face finely and closely punctured, vertex more sparsely punctured, the two interantennal ridges distinct but rather low, the marginal carinæ of the frontal depression well marked. Antennæ nearly as long as the whole insect. Mesonotum shining, with a few minute punctures, the parapsidal furrows distinctly crenulate; the depression at the base of the scutellum large, with three strong longitudinal carinæ. Median segment finely rugulose; with a small diamond-shaped enclosed area in the middle of the dorsal surface; from the apex of this area a carina runs to the apex of the segment, a curved lateral carina on each side of the median area and a transverse basal carina; the sides of the segment finely and closely punctured. First tergite a little more than half as long again as its apical breadth; the transverse line on the second tergite almost obsolete.

Hab. Mackay, Queensland (*Turner*); Townsville, Queensland (*Dodd*).

Disophrys rufifrons, sp. n.

♀. Rufo-testacea; vertice, antennis, tibiis posticis apice, tarsisque

posticis nigris; alis flavis dimidio basali, fuscis dimidio apicali; anticis stigmatē maculaque magna sub stigmatē cellulam brachiale attingente flavis.

Long. 10 mm.

♀. Head and thorax almost smooth; the interantennal ridges low, the marginal carinæ of the frontal depression well marked. Parapsidal furrows feebly crenulated. Enclosed area of the median segment broadly oval, extending to the apex.

Hab. Port Essington, Northern Territory (*Gould*).

Very similar to *ruberrima*, differing in the sculpture, in the smaller size and paler colour, in the colour of the face, and in the larger extent of the yellow mark below the stigma.

Disophrys diversipes, sp. n.

♀. Rufo-testacea; capite nigro, clypeo, mandibulis, apice excepto, palpisque rufo-testaceis; segmentis abdominalibus quarto sequentibusque, femoribus posticis, basi supra rufo-lineatis, tibiis posticis apice, tarsisque posticis nigris; alis dimidio basali flavis, dimidio apicali fuscis; anticis stigmatē fasciaque lata sub stigmatē flavis. Long. 10-11 mm.

♀. Face shining, sparsely and shallowly punctured, vertex smooth and shining; interantennal ridges rather low, the marginal carinæ of the frontal depression well developed. Median lobe of the mesonotum marked with a low longitudinal carina in front, with a distinct groove on each side of the carina; parapsidal furrows not crenulate. Median segment transversely rugulose between the longitudinal carinæ; the enclosed median area elongate-ovate, not reaching the apex of the segment. First tergite nearly twice as long as broad, second tergite without a transverse line. The yellow fascia of the fore wing nearly reaches the lower margin of the wing in the type, in some other specimens quite, leaving a detached fuscous band across the wing from the base of the stigma.

Hab. Kuranda, N. Queensland (*Turner*), May 1913; Mackay, Queensland (*Turner*).

Easily distinguished from *ruberrima* and *rufifrons* by the black hind femora and the black apical segments of the abdomen.

Disophrys exornata, sp. n.

♀. Rufo-testacea; antennis, tibiis posticis tertio apicali, tarsisque posticis nigris; alis tertio basali flavis, anticis fascia sub stigmatē

et stigmatis dimidio basali flavis, posticis cellulae radialis macula flavida.

Long. 7 mm.

♀. Face shining, minutely punctured, vertex smooth and shining; the interantennal ridges low but distinct, the carinae bordering the frontal depression well developed. Mesonotum very finely punctured, the middle lobe with a low longitudinal carina in front and a shallow groove on each side of the carina; mesopleurae finely punctured; the depression at the base of the scutellum with three distinct longitudinal carinae. Median segment rugose, the longitudinal carinae not very distinct; the median enclosed area long and narrow, the marginal carinae meeting at the base, diverging to the apex of the dorsal surface and converging again to the apex of the posterior slope; the sides of the segment finely punctured. Abdomen smooth and shining; first tergite twice as long as its apical breadth; second tergite without a transverse line.

Hab. Kuranda, N. Queensland (*Turner*), May to July.

Disophrys diluta, sp. n.

♀. Testacea; antennis, tibiis posticis apice farsisque posticis nigris; alis subhyalinis, fascia mediana pallide fusca; venis fuscis, basi flavis, stigmatum dimidio basali flavo, apice fusco.

Long. 8 mm.

♀. Very near *D. exornata*, the sculpture being identical on the head and thorax, but the median segment is less coarsely rugose and the longitudinal carinae more distinct. The pale fuscous fascia of the fore wings is fairly broad and crosses the wing from the base of the stigma. The basal portion of both wings is very feebly tinted with yellow, the apical portion very feebly with fuscous.

Hab. Mackay, Queensland (*Turner*), January; Kuranda, Queensland (*Turner*), July 1913.

Disophrys similipicta, sp. n.

♀. Flavo-testacea; antennis, vertice, mesonoto, mesosterno, segmentis abdominalibus quarto sequentibusque, coxis posticis, tibiis tarsisque posticis nigris; alis dimidio basali flavis, dimidio apicali fuscis, anticis stigmatum fasciaque magna subtriangulari sub stigmatum flavis.

Long. 8-9 mm.

♀. Face finely and closely punctured; vertex shining, with minute scattered punctures; interantennal ridges rather

low; marginal carinæ of the frontal depression distinct. Mesonotum sparsely punctured; the median lobe with a distinct longitudinal carina in front extending to the middle, with a distinct groove on each side of the carina; the depression at the base of the scutellum with three longitudinal carinæ. Median segment rugulose, the enclosed median area broadly oval. Second dorsal segment with an ill-defined but distinct impressed transverse line.

Hab. Mackay, Queensland (*Turner*); Townsville, Queensland (*Dodd*).

Disophrys nigropectus, sp. n.

♀. Flavo-testacea; antennis, mesothorace, scutello, segmentis abdominalibus tertio sequentibusque, coxis intermediis posticisque, trochanteribus, femoribus posticis intermediisque, tibiis intermediis supra, tibiisque tarsisquo posticis nigris; alis subhyalinis basi flavo apice fusco suffusis, costa nigra, stigmatibus fusco.

Long. 7 mm.

♀. Face smooth and shining; interantennal ridges low but distinct; the marginal carinæ of the frontal depression almost obsolete. Mesonotum smooth and shining, the middle lobe with a longitudinal carina reaching to the middle and a shallow groove on each side of the carina; the depression at the base of the scutellum smooth, without carinæ. Median segment coarsely rugulose; enclosed median area subtriangular, the sides diverging from the base to the apex of the dorsal surface; the apical slope without carinæ. First tergite scarcely half as long again as its apical breadth; second tergite without a transverse line.

Hab. Kuranda, N. Queensland (*Turner*), July 1913.

Approaches the genus *Euagathis* in the almost complete absence of frontal carinæ.

Biróia solitaria, sp. n.

♀. Rufo-testacea; antennis, articulis duobus basalibus exceptis, segmento mediano, angulis anticis exceptis, abdomine, pedibus posticis, valvulisque terebræ nigris; ventre basi albido; alis fuscis, linea curvata, irregulari sub stigmate hyalina.

♂. Feminæ similis; segmento mediano dimidio basali rufo-testaceo.

Long. 10 mm.; terebræ long. 6 mm.

♀. Face and vertex smooth and shining; two longitudinal ridges between the antennæ as in the genus *Disophrys*; marginal carinæ of the frontal depression distinct. Meso-

notum broadly triangular, narrowly rounded anteriorly, smooth and shining, without parapsidal furrows. Median segment with six longitudinal carinæ, which are almost parallel and are continued on the face of the posterior truncation, the spaces between the carinæ transversely striated. First tergite elongate-triangular in the female, triangular in the male, with a lateral groove on each side from the base to beyond the middle; second tergite with an impressed transverse line behind the middle. Second abscissa of the radius a little longer than the second transverse cubital nervure.

Hab. Mackay, Queensland (*Turner*), February and March.

This is the only Australian species of the genus known to me, and no others appear to have been described, though species of the genus appear to be fairly numerous in New Guinea. The four genera dealt with in this paper appear to be Malayan immigrants, and do not seem to occur in the southern portion of Australia.

XXIV.—*Four new Species of Hedgehog.*

By OLDFIELD THOMAS.

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Æthechinus angolæ, sp. n.

General characters of *Æ. frontalis*, but markedly smaller.

Colour of the type about as in average examples of *Æ. frontalis*; the dorsal spines tipped with whitish; the crown, cheeks, and throat white, the belly black. Dorsal spines about half whitish, then black, with a light tip. No dependence can, however, be placed on colour, as not only does *frontalis* vary enormously in this respect in single localities, but, from what Bocage says, the same is evidently true of *angolæ*. The spines of the back are 19–20 mm. in length, and those of the crown about 22 mm.

Skull essentially as in *frontalis*, but smaller. The marked longitudinal groove along the frontal suture, present in every one of fifteen skulls of *frontalis*, is not, however, perceptible in the type of *angolæ*. There is also much less distance at the sides of the nasals between the tips of the premaxillary and frontal processes than is usual in *frontalis*. The distance is only 2.2 mm. in *angolæ*, while it is commonly 5–6 mm. in *frontalis*. This is, however, a variable character in all hedgehogs.